

## 4.13 UTILITIES AND SERVICE SYSTEMS

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### 4.13.1 INTRODUCTION

This section describes existing utilities at the project site and in its vicinity and analyzes the potential for the project to affect water supply and the water distribution system; wastewater collection, conveyance, and treatment systems; solid waste services; and natural gas, electricity, and telecommunications services. **Section 4.6, Hydrology and Water Quality**, provides information regarding groundwater resources for the City of Santa Clara and the project's effect on that resource. **Section 4.6** also describes the proposed storm drainage facilities for the project and the potential environmental effects related to that system. Please refer to that section of this EIR for a full description of those resources.

Information on utilities and service systems was obtained from site visits, the City of Santa Clara General Plan, the Santa Clara Valley Water District (SCVWD) 2005 Urban Water Management Plan, the Santa Clara Water Utility (CSC) 2005 Urban Water Management Plan (UWMP), the City of Santa Clara Sanitary Sewer Capacity Assessment, and a water supply assessment (WSA) prepared for the project by CSC. The SCVWD 2005 UWMP, CSC 2005 UWMP, and WSA are appended to this EIR as **Appendix 4.6**. The Sanitary Sewer Capacity Assessment is available at the City of Santa Clara Planning Department, 1500 Warburton Avenue, Santa Clara.

Several comments regarding utilities and service systems were received in response to the Notice of Preparation circulated for this Environmental Impact Report (EIR). Several comments expressed concern that the project would impact the existing sewer and water conveyance systems. Concern for impacts to other communities' sewer systems was also expressed. Commenters requested clarification on the source of water demand data that would be used in evaluating impacts to water supply. Commenters requested information on how the supply of electricity in surrounding residential neighborhoods would be affected by the proposed project. Commenters indicated concern for water and energy demand impacts resulting from the proposed project. Commenters expressed concern that there is insufficient landfill capacity to serve the proposed project.

Lastly, a commenter inquired about the proposed utility plan, specifically whether the existing power lines along the southern boundary of the project site would be relocated underground. The project applicant has indicated that although the relocation of the existing power lines along the southern boundary of the site to underground is being considered, it is not part of the project. However, the existing power lines that traverse the middle of Parcels 1 and 2 on site would be installed underground.

## 4.13.2 ENVIRONMENTAL SETTING

### 4.13.2.1 Water Supply and Distribution

#### *Existing Water Use and Supply*

The CSC provides municipal water service to all areas within the City of Santa Clara. The CSC water supply includes local groundwater, imported water from the SCVWD, imported water from the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy Regional Water System (Hetch Hetchy System), and recycled water from South Bay Water Recycling (SBWR). The project site is served by a blend of well water and SCVWD treated surface water. This blend is presently composed of approximately 60 percent well water and 40 percent treated surface water (City of Santa Clara 2005). Buildings within Parcels 1 and 2 are currently vacant and these portions of the project site do not currently use potable water. The three 10,000-square-foot buildings located on Parcel 3 are currently occupied by medical/administrative offices and are being served by the potable water system. As calculated by the CSC, at the time the site was fully occupied by the hospital, the entire Kaiser hospital and supporting facilities had a total water demand of 104.2 acre-feet per year (afy) (CSC 2008). The buildings on Parcel 3 currently require a small fraction (about 8.2 afy)<sup>1</sup> of the overall water demand associated with the Kaiser facility.

#### *Local Groundwater*

As discussed in **Section 4.6**, the City of Santa Clara is underlain by the Santa Clara Valley Subbasin, the largest of three interconnected groundwater basins in Santa Clara County. The other two subbasins are the Coyote and Llagas subbasins. The groundwater basins are recharged through percolation of runoff, direct precipitation, subsurface inflow, and artificial recharge. Groundwater recharge is managed by the SCVWD through 18 recharge systems that include over 70 off-stream ponds and more than 30 local creeks. The total recharge capacity of these systems is approximately 138,000 afy (SCVWD 2005).

#### *Imported SCVWD Surface Water*

The SCVWD is an independent special district that supplies potable water to areas throughout Santa Clara County. Sources of water supplied by the SCVWD include groundwater from the Santa Clara Valley, Coyote, and Llagas Subbasins and surface water from the Central Valley Project and State Water

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<sup>1</sup> Based on the square footage of the buildings on Parcel 3 (i.e., 30,000 square feet) and the total square footage of the Kaiser hospital and supporting facilities (i.e., 382,000 square feet), the three medical/administrative office buildings would have a water demand of 8.2 acre-feet per year or approximately 8 percent of the total Kaiser facility's water demand.

Project (SWP).<sup>2</sup> The SCVWD also provides recycled water for landscape irrigation and commercial and industrial uses within the Santa Clara County.

### **State Water Project**

According to the SCVWD 2005 UWMP, 50 percent of the District's water comes from the SWP. As described above, 40 percent of the water provided to the project site is surface water supplied by the SCVWD, and 60 percent is provided by groundwater. Given that some water supply does come from the SCVWD, there is a possibility that approximately 20 percent of surface water provided to the site comes from the SWP.

### ***Water Supply and Demand***<sup>3</sup>

In the early 1960s, DWR began entering into individual water supply contracts with various urban and agricultural public water supply agencies (*i.e.*, SWP Contractors). The total planned annual delivery capability of the SWP and the sum of all SWP Contractors' maximum Table A amounts specified in the water supply contracts were approximately 4.2 million acre-feet (maf). The initial SWP storage facilities were designed to meet SWP Contractors' water demands in the early years of the project, with construction of additional storage facilities planned as demands increased. Conveyance facilities were generally designed and constructed to deliver full Table A Amounts to SWP Contractors. Water deliveries to SWP Contractors began as initial SWP facilities were completed in the late 1960s and early 1970s; however, no additional SWP storage facilities have been constructed since that time.

From 1990 to 2003, actual SWP annual deliveries of Table A supplies to SWP Contractors ranged from approximately 550,000 af in 1991 to approximately 3.2 maf in 2000 and 2003 (excluding Article 21 deliveries). The primary factors affecting the amount of Table A deliveries are the availability of SWP supplies and the SWP Contractors' demands for this water. Climatic conditions and other factors can also significantly alter and reduce the availability of SWP water in any year. The amount of water DWR determines is available and allocates for delivery in a given year is based on that year's hydrologic conditions, the amount of water in storage in the SWP system, current regulatory, operational, and environmental constraints, and the SWP Contractors' requests for SWP supplies. Even in years when

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<sup>2</sup> The Central Valley Project (CVP) is a water storage and transport system operated by the US Bureau of Reclamation that provides water supply to the Central Valley and Bay Area. The CVP includes 22 reservoirs with a combined storage of 11 million acre feet. The State Water Project (SWP) is a water and power development and conveyance system that includes reservoirs, lakes, storage tanks, canals, tunnels, and pipelines to convey water from the Feather River to 29 water agencies. The SWP has a storage capacity of 5.8 million acre feet.

<sup>3</sup> Bulletin 132-04, Management of the California State Water Project, is the most recent published data by DWR for SWP operations and deliveries to SWP Contractors.

additional Table A supplies are available, the amount of water DWR allocates is limited to SWP Contractors' requests. The requests of many SWP Contractors during this 14-year period were less than their full Table A Amount, so SWP Contractor requests limited allocations in some years. In addition, since SWP Contractors' water needs may change during the year (*e.g.*, due to higher than anticipated local precipitation and supplies), they may not take delivery of all of the Table A supply allocated to them. Since historically low SWP Contractor demands have limited deliveries in wetter years when additional supplies were available, historic deliveries only provide an indication of actual SWP delivery capability in supply-limited dry years.

To determine the SWP delivery capability under current and future conditions, DWR uses a computer model (currently, CALSIM II) that simulates operations of the SWP and CVP. DWR's most recently published estimates of SWP delivery capability and reliability are included in its State Water Project Delivery Reliability Report 2007 (August 2008). In this report, DWR estimates that annual deliveries of Table A supplies to SWP Contractors will average approximately 2.8 maf under current conditions and 3.2 maf under 2025 conditions (based on estimates of current and 2025 levels of SWP Contractor demands and land and water use upstream of the Bank Pumping Plant,<sup>4</sup> with existing SWP facilities operated under the constraints of D-1641 and the *Wanger* decision).

A topic of growing concern for water planners and managers is global climate change and the potential impacts it could have on California's future water supplies. DWR's California Water Plan Update 2005 contains the first-ever assessment of such potential impacts in a California Water Plan. Volume 1, Chapter 4 of the Water Plan, *Preparing for an Uncertain Future*, lists the potential impacts of global climate change, based on more than a decade of scientific studies on the subject (Please refer to EIR **Appendix 4.6** for more information on this topic. The appendix contains the best available information on the subject of global climate change and its effects on California's water supplies).

Changes in Sierra snowpack patterns (the source of the SWP's water supply in Lake Oroville), hydrologic patterns, sea level, rainfall intensity and statewide water demands are all possible should global climate change prove to be increasing through time. Computer models (such as CALVIN) have been developed to show water planners what types of effect climate change could have on the water supply. DWR has committed to continue to update and refine these models based on on-going scientific data collection, and to incorporate this information into future California Water Plans, so that agencies like the CSC can plan accordingly.

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<sup>4</sup> Land and water use upstream of the Banks Pumping Plant affects the amount of water flowing into the Delta. In general, increases in the amount of water flowing into the Delta can increase SWP supplies, while decreases in the amount of water flowing into the Delta (due to increased water use upstream or a variety of other factors) can decrease SWP supplies.

DWR's State Water Project Delivery Reliability Report 2007 (August 2008), also addresses global climate change, noting that until the impacts of climate change on precipitation and runoff are better quantified, future weather patterns are usually assumed to be similar to those of the past. DWR also has also acknowledged that this assumption has an inherent uncertainty, especially given the evolving information on the potential effects of global climate change, and has indicated that as information regarding global climate change becomes better defined, it will be helpful in guiding the development of statewide strategies for the future management and development of water resources facilities, including the SWP.

In addition, recent litigation has had an effect upon the availability and reliability of imported SWP supplies. For example, in October 2006, plaintiff, Watershed Enforcers, a project of the California Sportfishing Protection Alliance, filed a lawsuit in Alameda County Superior Court alleging that DWR was not in compliance with the CESA and did not have the required state incidental take permit to protect the Delta smelt as part of DWR's pumping operations at the Harvey O. Banks Pumping Plant located near the town of Tracy (*Watershed Enforcers, et al. v. California Department of Water Resources, et al.* Alameda County Superior Court No. RG06292124 [*Watershed* decision]). In April 2007, the court agreed with the plaintiff and ordered a shutdown of pumping from the Delta if appropriate permits could not be obtained in 60 days. In May 2007, DWR filed an appeal of the trial court's decision, which automatically stayed the decision pending the outcome of the appeal. At the same time, DWR entered into a Memorandum of Understanding with CDFG to jointly work with the appropriate federal agencies to develop a federal Biological Opinion that complies with CESA. During preparation of the new Biological Opinion, DWR committed itself to actions related to protecting the Delta smelt and other species through adaptive management provisions. Upon completion of this effort, DWR plans to submit a request to CDFG for a consistency determination under CESA that would allow for incidental take based on the new federal Biological Opinion.

The *Wanger* decision, discussed above, has also affected imported SWP supplies in the immediate short-term time frame. The background of the *Wanger* decision and its implications are further discussed below.

On February 16, 2005, the USFWS issued its Biological Opinion, determining that the operations and criteria for both the CVP and SWP would not result in jeopardy to the Delta smelt. On May 20, 2005, the Natural Resources Defense Council (NRDC) and others filed a supplemental complaint in federal court against the Secretary of the Interior and the Director of USFWS, challenging the adequacy of the 2005 Biological Opinion. On June 9, 2006, plaintiffs filed their motion for summary judgment. On July 6, 2006, in light of new information, the US Bureau of Reclamation (Bureau), operator of CVP, requested that USFWS reinitiate consultation on the operations plan and criteria for the CVP. Notwithstanding the request for reinitiation of consultation, the parties proceeded with briefing their cross-motions for

summary judgment and, on May 25, 2007, the US District Court for the Eastern District, the Honorable Oliver W. Wanger, presiding, found that the 2005 Biological Opinion was inadequate and that the no-jeopardy determination was arbitrary, capricious, and contrary to the law.<sup>5</sup>

On August 31, 2007, Judge Wanger announced an initial ruling, which outlined an operational plan calling for reductions in water supplies to protect the Delta smelt. The Court specified that reduced operations would last until September 2008, while federal agencies develop a revised Biological Opinion for Delta smelt that will ensure the SWP's and CVP's compliance with the requirements of the federal ESA.

On December 14, 2007, Judge Wanger issued a final court order, which curtails Delta pumping to protect the Delta smelt. The range of reduced operations is consistent with earlier estimates made by DWR following the Court's initial ruling in August 2007. Following Judge Wanger's final ruling, DWR performed additional modeling and analysis of the impacts of the *Wanger* decision on Delta pumping. According to DWR, the final ruling will primarily affect export pumping between January and June 2008, when juvenile Delta smelt are at greatest risk of entrainment in pumps. Further, DWR has stated that the actual impact on SWP water supply will depend on a number of factors, including the locations where adult smelt spawn and off-spring hatch, levels of precipitation for the year, and water temperatures affecting how quickly the fish migrate. The Court's restrictions on SWP/CVP operations will last until September 15, 2008, while the revised Biological Opinion for Delta smelt is completed. The revised Biological Opinion is expected to impose restrictions that may continue reduced pumping operations in the SWP/CVP until broader solutions are implemented for the Bay-Delta.

The *Watershed* and *Wanger* decisions have serious implications on imported SWP/CVP water supplies throughout California. These implications are outlined below based on the best available current information.

In terms of short-term water supply availability, there have been short-term effects related to issues presented in the *Watershed* and *Wanger* decisions. For example, pumping operations were shut down for approximately nine days in June 2007 due to concerns over the declining number of Delta smelt. DWR then operated the pumps at limited levels for several weeks while waiting for the smelt to migrate to cooler waters. DWR then resumed normal operations in July 2007. There is also concern that the remedy adopted by the District Court could ultimately become part of the conditions in the new incidental take permit expected to be issued in the fall of 2008. These concerns, if they materialize, could limit the percentage of SWP water that can be delivered to SWP Contractors. If such remedies are not ultimately

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<sup>5</sup> The *Wanger* decision is found in **Appendix 4.13** of this EIR

part of the incidental take permit, the permit itself may contain conditions that would lower the percentage of SWP water made available for delivery to the CSC.

However, precisely because of these concerns, Governor Schwarzenegger directed DWR to take immediate action to improve conditions in the Delta.<sup>6</sup> According to the Office of the Governor, the Governor is building on his Strategic Growth Plan from last year, which consists of approximately \$6 billion to upgrade California's water systems. The Governor's plan invests \$4.5 billion to develop additional surface and groundwater storage. The plan also includes \$1 billion toward restoration of the Delta, including development of a new conveyance system, \$250 million to support restoration projects on the Klamath, San Joaquin, and Sacramento Rivers, and the Salton Sea project, and \$200 million for grants to California communities to help conserve water. Using existing resources, DWR will implement numerous actions, including screening Delta agriculture intake pumps to protect smelt, restoring the North Delta's natural habitat, improving the Central Delta water flow patterns, and improving DWR's ability to respond to Delta emergencies, such as levee failures.

The Governor has also directed the Delta Vision Blue Ribbon Task Force to develop a delta management plan. The Task Force presented its findings and recommendations in January 2008, and its strategic plan will be presented by October 31, 2008. The Bay-Delta Conservation Plan is also underway. The Plan is intended to ensure compliance with federal and state Endangered Species Act requirements in the Delta. The \$1 billion proposed in the Governor's comprehensive plan will be used to fund recommendations from both the Delta Vision Task Force and the Conservation Plan.

Over the long-term, water supply availability and reliability will continue to be assessed by DWR in DWR's biennial SWP delivery reliability reports. These reports necessarily take into account a myriad of factors in evaluating long-term water supply availability and reliability. These factors include multiple sources of water, a range of water demands, timing of water uses, hydrology, available facilities, regulatory restraints, including pumping constraints due to impacts on listed fish species, water conservation strategies, and future weather patterns. The *Watershed* and *Wanger* decisions highlight the regulatory restraints applicable to SWP supplies, which have impacted DWR deliveries of SWP supplies in the past, and could curtail such deliveries in the future.

### ***Imported SWP Water***

SWP supply estimates are based on the data presented in DWR's State Water Project Delivery Reliability Report, 2007, (August 2008), with SWP water supplies allocated among SWP Contractors in accordance

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<sup>6</sup> For the Governor's release issued July 17, 2007, please refer to <http://gov.ca.gov/index.php?/print-version/press-release/6972/>, which is included in **Appendix 4.13** of this EIR.

with their water supply contract provisions currently in effect.<sup>7</sup> **Table 4.13-1** shows the portion of SWP supplies projected to be available in a single dry year (based on a repeat of the worst-case hydrologic conditions of 1977) and over a multiple dry-year period (based on a repeat of the worst-case four year drought 1931-1934).<sup>8</sup>

**Table 4.13-1**  
**SWP Table A Supply (in Percent of Maximum**  
**Table A Contract Amount) for Single-Dry and Multiple-Dry Years<sup>1</sup>**

Supply Source	Single Dry Year <sup>2</sup>	Multiple Dry Years <sup>3</sup>
<b>SWP Table A Supply/Delivery</b>		
<b>2008</b>		
Percent of Table A Amount	6%	32%
<b>2025/2030</b>		
Percent of Table A Amount	7%	33%

Notes:

<sup>1</sup> The percentages of Table A Amount projected to be available are taken from DWR's State Water Project Delivery Reliability Report 2007 (August 2008).

<sup>2</sup> Based on the worst case historic single dry year of 1977.

<sup>3</sup> Supplies shown are annual averages over four consecutive dry years, based on the worst-case historic four-year dry period of 1931-1934.

Source: SWP Delivery Reliability Report 2007 (August 2008).

### ***Litigation Effects on Availability of Imported Water***

The purpose of this section is to disclose litigation challenges and their effects on the availability and reliability of imported water supplies. In summary, it has been determined, based on substantial evidence

<sup>7</sup> The water supply contracts between DWR and the SWP Contractors include provisions regarding how total available SWP water supplies are allocated among SWP Contractors. The allocation provisions currently in effect are as they were amended by the Monterey Amendments. The Monterey Amendments have been in effect for more than ten years, but pursuant to litigation, is undergoing a second environmental review by DWR. In October 2007, DWR released the new Draft EIR analyzing the Monterey Amendments to the SWP contracts, including Kern water bank transfers and associated actions as part of the Monterey Settlement Agreement (SCH No. 2003011118). This Draft EIR is also known as the Monterey Plus Draft EIR. The Draft EIR addresses the significant environmental impacts of changes to the SWP operations that are a consequence of the Monterey Amendments and the Monterey Settlement Agreement. It also discusses the project alternatives, growth inducement, water supply reliability, as well as potential areas of controversy and concern. The Draft EIR is available for public inspection and review by contacting DWR in Sacramento or from DWR's website, [http://www.des.water.ca.gov/mitigation\\_restoration\\_branch/rpmi\\_section/projects/index.cfm](http://www.des.water.ca.gov/mitigation_restoration_branch/rpmi_section/projects/index.cfm). The Draft EIR is herein incorporated by reference in this EIR.

<sup>8</sup> Normal year SWP supplies are calculated by multiplying a water agency's full Table A Amount by percentages of average deliveries projected to be available (63% in 2010, 66% in 2020 and 69% in 2025/2030), taken from DWR's "Final State Water Project Delivery Reliability Report" (January 2008).



in the record, that the litigation challenges are not likely to affect the short-term or long-term availability or reliability of imported water supplies as projected in the 2005 UWMP and other reports, studies, and documents used in preparing this EIR.

In *Planning and Conservation League v. Department of Water Resources* (2003) 83 Cal.App. 4th 892, the Court of Appeal, Third Appellate District, decertified an EIR prepared by the Central Coast Water Agency (CCWA) to address the Monterey Agreement (Monterey EIR). The Monterey Agreement was a statement of principles to be incorporated into omnibus amendments to the long-term water supply contracts between the DWR and the SWP Contractors. The Monterey Agreement was the culmination of negotiations between DWR and most of the 29 SWP contractors to settle disputes arising out of the allocation of water during times of shortage. Twenty-seven of the 29 SWP Contractors executed the amendments to their water supply contracts in 1996, which became known as the "Monterey Amendments." The Monterey Amendments revised the methodology of allocating water among SWP Contractors and provided a mechanism for the permanent transfer of Table A water amounts from one SWP Contractor to another.

As stated above, although the court set aside the Monterey EIR prepared by CCWA, it did not set aside or invalidate the Monterey Agreement or the Monterey Amendments. No court has ordered any stay or suspension of the Monterey Agreement or the Monterey Amendments pending certification of a new EIR. DWR and the SWP Contractors continue to abide by the Monterey Agreement, as implemented by the Monterey Amendments, as the operating framework for the SWP, while the new EIR is undertaken.

Following decertification of the original Monterey EIR, the PCL litigants entered into the Monterey Settlement Agreement in 2003, designating DWR as the lead agency for preparation of the new EIR to address the Monterey Agreement. In October 2007, DWR completed the Draft EIR analyzing the Monterey Amendments to the SWP contracts, including Kern water bank transfers and associated actions as part of the Monterey Settlement Agreement (Monterey Plus Draft EIR; SCH No. 2003011118). The Draft EIR addresses the significant environmental impacts of changes to the SWP operations that are a consequence of the Monterey Amendments and the Monterey Settlement Agreement. It also discusses the project alternatives, growth inducement, water supply reliability, as well as potential areas of controversy and concern.

Based on the above analysis, this EIR acknowledges that court challenges have been filed which could impact the reliability of imported water supplies. It has been determined that there is substantial evidence in the record to support the conclusion that there is sufficient water to serve the proposed project as well as anticipated cumulative development in the City.

***Imported SFPUC Surface Water***

As discussed in **Section 4.6**, water supplied by the SFPUC is delivered via the Hetch Hetchy System. The Bay Division Pipelines is a branch of the Hetch Hetchy System that traverses the northern portion of the City of Santa Clara and delivers potable water to areas of the City north of US Highway 101. Contracts between the City of Santa Clara and the SFPUC limit water delivery from the Hetch Hetchy System to 6.57 million gallons per day (mgd). Currently, the City obtains an average of 4.9 mgd or 5,500 afy from the Hetch Hetchy System (City of Santa Clara 2005).

***Recycled Water***

Recycled water within the City is supplied by SBWR, a part of the San Jose/Santa Clara Water Pollution Control Plant (WPCP). The plant treats wastewater in compliance with California Administrative Code Title 22 Division 4 requirements for unrestricted use, which allows for the use of recycled water (treated effluent) in landscape irrigation, industrial processes, and some commercial uses. The predominant use of recycled water in the City is landscape irrigation, particularly in large turf areas such as golf courses, parks, and schools. Recycled water is also currently used in industrial processes, cooling towers, and toilet flushing in dual-plumbed buildings. In the 2004 through 2005 fiscal year, recycled water use in the City was 2,480 acre-feet or 9.6 percent of the overall City water demand (City of Santa Clara 2005).

**Water Distribution and Treatment Infrastructure**

The CSC owns and maintains the domestic water distribution system within the City of Santa Clara. The domestic water distribution system consists of 334 miles of water pipeline, 27 miles of recycled water pipeline, 27 wells, and seven storage tanks. Four major pipelines are located within the vicinity of the project site and serve existing on-site land uses. An 8-inch-diameter water main runs in a north-south direction in the eastern portion of Kiely Boulevard. The pipeline in Kiely Boulevard connects to an 8-inch diameter water main that runs east-west in Kaiser Drive. An 8-inch pipeline within Pepper Tree Lane runs in a north-south direction and connects to the existing water main within Kaiser Drive. An 8-inch water main exists within Miles Drive. Recycled water distribution lines do not currently extend to the project site. The City plans to install a recycled water line through Central Park to Wilcox High School in late 2008. This new recycled water line would be located approximately 700 feet north of the intersection of Kiely Boulevard and Kaiser Drive. The proposed project includes an extension of this line to allow for on-site recycled water use (Amin 2008).

The SCVWD owns and operates three water treatment plants including the Rinconada, Santa Teresa, and Penitencia Water Treatment Plants. The Rinconada Water Treatment Plant (RWTP) produces potable water for areas within the west Santa Clara Valley, including the cities of Santa Clara, Los Gatos,

Campbell, Sunnyvale, Cupertino, Mountain View, Los Altos, and Los Altos Hills. Treatment capacity at the RWTP is 80 mgd. Currently, the RWTP treats an average of 80 mgd and generally does not have additional available capacity (Crowley 2008). The RWTP is in the process of implementing the Water Treatment Improvement Project. The improvement project includes two stages, a first stage to add and modify chemical facilities and construct a new warehouse, and a second stage to convert the primary disinfection process from chlorine to ozone and improve the quality of effluent from the RWTP along with an upgrade in treatment capacity to 100 mgd. The first stage was completed in 2001. Construction of the second stage is scheduled to begin in early 2011 and end in 2015. Groundwater supplies are not treated prior to distribution because groundwater extracted from the Santa Clara Valley Subbasin is of sufficient quality to comply with current state and federal drinking water standards upon extraction. See **Section 4.6, Hydrology and Water Quality** for a detailed description of groundwater quality.

## ***Wastewater***

### **Sewage Collection and Conveyance**

The CSC provides sanitary sewer collections services to the City of Santa Clara. The CSC owns and maintains the sanitary sewage collection and conveyance system within the City. The system consists of 277 miles of collector and transmission mains ranging from 4 to 48 inches in diameter, 24,400 sewer lateral connections, 4,890 manholes, 16 siphons, and 6 sanitary sewer pump stations. Existing sewer lines in the project vicinity include an 8-inch-diameter line under Kaiser Drive and Pepper Tree Lane, a 21-inch-diameter line along the bank of the Saratoga Creek, and a 24-inch-diameter line under Kiely Boulevard. The sewers in Kaiser Drive and along the bank of the Saratoga Creek convey wastewater flows to the line in Kiely Boulevard that continues in a northerly direction to a trunk sewer line in Bowers Avenue north of the project site. The trunk sewer line travels north along Bowers Avenue, which becomes Great America Parkway after crossing Highway 101. After crossing San Tomas Aquino Creek, the sewer line then heads east crossing the Golf Course before reaching Lafayette Street. From Lafayette Street, the sewer line resumes a northward flow to the San Jose/Santa Clara Water Pollution Control Plant (WPCP).

The *City of Santa Clara Sanitary Sewer Capacity Assessment* was finalized in May 2007 and was prepared to predict future wastewater flow for the City's collection and conveyance system, develop a hydraulic model of the trunk sewer system, utilize the hydraulic model to identify capacity deficiencies and future capacity requirements, and develop a phased capital improvement program for implementing capacity improvements. According to the sewer capacity assessment, future development is expected to generate wastewater flows that cannot be adequately conveyed within portions of the existing collection and conveyance system. Specific pipelines that would not have adequate capacity to accommodate future

growth include the line in Bowers Avenue; the line in Great American Parkway; and smaller trunk lines in Chromite Drive, Machado Avenue, Calabazas Boulevard, and El Camino Real. The sewer capacity assessment prioritizes several capital improvement projects. A new west-to-east trunk sewer running from Chromite Drive just west of Bowers Avenue to Central Parkway east of Lafayette Street is considered the first priority and will alleviate capacity deficiencies in the trunk lines in Bowers Avenue and Great American Parkway. Construction for the west-to-east trunk sewer line is expected to begin in mid 2009 and end in late 2010 (Amin 2008).

### **Wastewater Treatment**

Wastewater generated within the City of Santa Clara is conveyed to the San Jose/Santa Clara WPCP at 700 Los Esteros Road in San Jose for treatment. The WPCP is jointly owned by the cities of San Jose and Santa Clara and serves over 1.5 million people within a 300-square-mile area including San Jose, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The WPCP has the capacity to treat 167 mgd to tertiary standards.<sup>9</sup> Currently, the WPCP treats an average of 110 mgd and has an available capacity of 57 mgd (Rock 2008). Buildings within Parcels 1 and 2 are currently vacant and these portions of the project site do not currently generate wastewater, although historically the hospital at the site generated approximately 0.05 mgd (or 52,800 gallons per day) of wastewater. The three 10,000-square-foot buildings located on Parcel 3 of the project site are currently occupied with medical/administrative office land uses, and are being served by the City's wastewater conveyance and treatment systems. The buildings on Parcel 3 currently generate 1,500 gallons per day or 0.0015 mgd.

### ***Solid Waste***

The City of Santa Clara contracts with Mission Trail Waste Systems for solid waste collection and disposal services. Collection of recyclable materials is conducted under a contract with the City by Stevens Creek Disposal and Recycling. Solid waste and recyclables are transferred to the Newby Island Landfill and Recyclery (NILR) located at 1601 Dixon Landing Road in the City of Milpitas, approximately 8 miles northeast of the project site. The approximately 171 square-mile NILR has a permitted capacity of 50.8 million cubic yards. The NILR has a permit to accept a maximum of 4,000 tons of solid waste per day. The NILR has a remaining disposal capacity of about 18.3 million cubic yards. A contract is in place that provides capacity for disposal of all solid waste generated within the City at the Newby Island Landfill through 2019 (CIWMB 2006). Buildings within Parcels 1 and 2 are currently vacant and these portions of the project site do not currently generate solid waste. The three 10,000-square-foot buildings

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<sup>9</sup> Tertiary standards or treatment is the final stage to raise effluent quality before discharging to the environment (e.g., sea, river, lake, and ground). Typically, tertiary treatment includes nutrient removal and disinfection.

located on Parcel 3 of the project site are currently occupied and being served by the City's solid waste collection and disposal services. The buildings on Parcel 3 currently generate 60 tons of waste per year.

### *Electricity*

Electrical power is provided by the Santa Clara Electric Department, known as Silicon Valley Power (SVP). Approximately 22 percent of the electricity provided by SVP is generated at the Donald Von Raesfeld Power Plant at 850 Duane Avenue in Santa Clara and the remainder originates from a variety of sources through contract with SVP. The SVP provides the option of receiving electricity only generated by renewable sources, including wind and solar power, through the Santa Clara Green Power program (Stone 2008).

The local distribution system is owned and operated by SVP. Electrical power is delivered to the project site via a series of overhead and underground power lines. Overhead power lines include 12 kilovolt (kV) lines running north to south through the western portion of Parcel 1, east to west along the southern boundary of Parcel 1, and from the southern boundary of the project site across Kiely Boulevard and continuing northeast. Underground power lines run in Kiely Boulevard and Kaiser Drive. The three 10,000-square-foot buildings located on Parcel 3 of the project site are currently occupied and are served by the SVP system. The buildings on Parcel 3 currently demand a small fraction of the overall electricity demand that was associated with the Kaiser hospital when it was operational. If electricity demand were a function of square footage, the three medical/administrative office buildings on Parcel 3 would account for approximately 8 percent of the total Kaiser facility's electricity demand.

### *Natural Gas*

Natural gas is provided and distributed to the project site by Pacific Gas and Electric (PG&E). Existing natural gas infrastructure serving the project site includes a 3-inch diameter line under Kaiser Drive, 2-inch diameter line under Kiely Boulevard, 1-inch line stub serving Parcel 3, and 1.25-inch line serving Parcels 1 and 2. The three 10,000-square-foot buildings located on Parcel 3 of the project site are currently occupied and being served by the PG&E system. The buildings on Parcel 3 currently demand a small fraction of the overall natural gas demand associated with the Kaiser facility. If natural gas demand were a function of square footage, the three medical/administrative/office buildings on Parcel 3 would account for approximately 8 percent of the total Kaiser facility's natural gas demand.

### *Telecommunications*

Telephone service in the City of Santa Clara is provided by AT&T. Existing telecommunications infrastructure on and around the project site include overhead and underground telephone lines. The

three 10,000-square-foot buildings located on Parcel 3 of the project site are currently occupied and being served by the AT&T system.

#### 4.13.3 REGULATORY CONSIDERATIONS

##### **Urban Water Management Planning Act**

California State Assembly Bill 797 (California Water Code Section 10610, et seq.), adopted in 1983, requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or more than 3,000 acre-feet of water on an annual basis to prepare an UWMP. The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. UWMPs must be updated every five years in years ending in 0 and 5.

The City adopted a UWMP in November of 2005 and it was subsequently submitted to the Department of Water Resources. As required by law, the CSC 2005 UWMP includes projected water supplies required to meet future demands through 2020. In accordance with the Water Code Section 10910(c)(2) and Government Code Section 66473.7(c)(3), information from the CSC 2005 UWMP along with updated supplemental information from the City has been used by the CSC to prepare a water supply assessment (WSA) for the project (see **Appendix 4.6**). The SCVWD provides imported water to the cCty. The SCVWD adopted a UWMP in December 2005, which was subsequently submitted to the Department of Water Resources.

##### **Senate Bill 610**

Senate Bill (SB) 610 requires that projects subject to CEQA that would be supplied with water from a public water system that identifies groundwater as a source prepare a specified water supply assessment. These water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912[a]) subject to CEQA. This legislation also expands the requirements for certain types of information in a UWMP, including an identification of any existing water supply entitlements, water rights, or water service contracts held relevant to the water supply assessment for a proposed project, and a description of water deliveries received in prior years. A water supply assessment has been prepared by the CSC for the proposed project and is provided in **Appendix 4.6** of this EIR.

##### **Senate Bill 221**

Senate Bill (SB) 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s). This

requirement also applies to increases of 10 percent or more of service connections for public water systems with fewer than 500 service connections. The law defines criteria for determining "sufficient water supply," such as using normal, single-dry, and multiple-dry year hydrology and identifying the amount of water that the supplier can reasonably rely on to meet existing and future planned uses.

#### **Title 24**

Buildings constructed after June 30, 1977, must comply with standards identified in Title 24 of the California Code of Regulations. Title 24 requires the inclusion of state-of-the-art energy conservation features in building design and construction, including the incorporation of specific energy-conserving design features, use of non-depletable energy resources, or a demonstration that buildings would comply with a designated energy budget.

#### **California Integrated Waste Management Act**

As many of the landfills in the state are approaching capacity and finding a location for new landfills becomes increasingly difficult, the need for source reduction, recycling, and composting has become readily apparent. In response to this increasing solid waste problem, in September 1989 the State Assembly passed Assembly Bill (AB) 939, known as the California Integrated Waste Management Act. The act required every city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) with its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 2202 mandates that jurisdictions continue 50 percent diversion on and after January 1, 2000. The purpose of AB 939 is to facilitate the reduction, recycling, and re-use of solid waste to the greatest extent possible. The consequences of noncompliance with the goals and timelines set forth within AB 939 can be severe, as the bill imposes fines of up to \$10,000 per day on cities and counties not meeting these recycling and planning goals. The 2004 diversion rate for the City was 53 percent, which complies with the goals specified in AB 939 (CIWMB 2008).

#### **City of Santa Clara Rules and Regulations**

The City of Santa Clara has established Water Service and Use Rules and Regulations in order to prevent water waste and reasonably reduce water use within the City. The Water Service and Use Rules and Regulations include water use restrictions and prohibitions that prohibit water uses such as ones that result in water runoff or flooding onto sidewalks, gutters, or streets; cleaning of sidewalks, patios, vehicles, and hard paving surfaces unless the hose used is fitted with an operating automatic shut-off valve; installation of non-recirculating decorative fountains; and more. The full list of water use

restrictions and prohibitions can be found in Section 1.C of the Water Service and Use Rules and Regulations.

The City of Santa Clara has also established Garbage, Refuse Recycling, Clean Green Materials Rules and Regulations, and Electric/Silicon Valley Power Rules and Regulations that describe the basic function and mechanics of each utility service. The Garbage, Refuse Recycling, and Clean Green Materials Rules and Regulations apply to refuse containers, household hazardous waste disposal, collection services, green waste, and annual cleanups. The Electric/Silicon Valley Power Rules and Regulations stipulate rates, access requirements, equipment handling rules, and procedures for parallel generation and emergency generation.

#### 4.12.4 Impacts and Mitigation Measures

##### *Significance Criteria*

The impact of the proposed project on utilities and service systems would be considered significant if it would exceed the following standards of significance, in accordance with Appendix G of the *State CEQA Guidelines*:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Not comply with applicable federal, state, and local statutes and regulations related to solid waste;
- Require new or expanded electrical or natural gas facilities, the construction of which could cause significant environmental effects; and
- Require new or expanded telecommunication facilities, the construction of which could cause significant environmental effects.



### *Issues Not Discussed Further*

**Section 4.6, Hydrology and Water Quality**, provides information regarding groundwater resources for the City of Santa Clara and the project's effect on that resource. **Section 4.6** also describes the proposed storm drainage facilities for the project and the potential environmental effects related to that system. Please refer to **Section 4.6** of this EIR for a full description of those resources.

Wastewater generated on the project site would originate from residential sources and no industrial wastewater would be generated by the proposed project. While new sewer lines would be constructed on site to accommodate project-generated flows, given that the site wastewater would be typical of residential areas, no specific changes to the wastewater treatment plant would be required to treat these flows. As a result, no impacts related to the Regional Water Quality Control Board's wastewater treatment requirements for the regional wastewater treatment plant would be expected. Therefore, this issue is not discussed further in this section.

The project consists of proposed residential land uses which would not result in the generation of unique types of solid waste that would conflict with existing regulations applicable to solid waste disposal. The project would be required to comply with City of Santa Clara solid waste disposal requirements, including recycling or special materials disposal programs to comply with the provisions of AB 939. Therefore, the project would comply with applicable federal, state, and local statutes and regulations related to solid waste. This issue is not discussed further in this section.

### *Methodology*

Project impacts are evaluated according to the above standards of significance by utilizing information on existing utility and service systems infrastructure provided by the City of Santa Clara, SCVWD, RWTP, San Jose/Santa Clara Water Pollution Control Plant, and Newby Island Landfill and Recyclery. The project's effect on the wastewater conveyance and wastewater treatment plant was evaluated by using the information in the *City of Santa Clara Sanitary Sewer Capacity Assessment*, which evaluated the existing and future capacity of the wastewater conveyance system within the City using monitoring and a hydraulic model. The CSC prepared a water supply assessment for the proposed project attached as **Appendix 4.6** of this EIR. The information used in the WSA includes historical demand within the City of Santa Clara, based on land use types. These sources of information, along with UWMPs prepared by CSC and the SCVWD were used to evaluate whether the project would exceed the standards of significance listed above.

Potential impacts to the Newby Island Landfill and Recyclery were evaluated by calculating the amount of solid waste that would be generated by the project and comparing the volumes to the existing

remaining capacity of the landfill, and determining whether there would be enough capacity to serve the project. This EIR evaluates the amount of solid waste that would be generated by the project under existing conditions, as well as the amount of solid waste generated by the project and other projects that would be operational by 2011 to determine whether the landfill has sufficient capacity to serve the project at project buildout. Electricity, natural gas, and telecommunications impact analyses were based on the demand for these resources and services associated with the project and communication with service provider staff to determine whether sufficient capacity exists to meet that demand.

### ***Project Impacts and Mitigation Measures***

**Impact UTIL-1:           Development of the site would not require the wastewater conveyance system to be upgraded to handle project flows. (*Less than Significant*)**

The proposed on-site wastewater conveyance system would include an 8-inch sewer line that would connect to the residential units on the site and extend to the existing 8- and 24-inch sewer lines under Kaiser Drive and Kiely Boulevard, respectively. The sewer line in Kiely Boulevard conveys wastewater to the trunk sewer in Bowers Avenue north of the project site. As part of the *City of Santa Clara Sanitary Sewer Capacity Assessment*, redevelopment of the project site with the proposed land uses was included in the CSC sanitary sewer capacity model along with other planned development to evaluate potential impacts to sewer trunk lines in the City. The model indicated that the trunk sewer line in Bowers Avenue would not have sufficient capacity to convey wastewater generated by planned development within the City including the proposed project. A new west-to-east trunk sewer line from Chromite Drive, just west of Bowers Avenue, to Central Parkway east of Lafayette Street will alleviate capacity deficiencies in the trunk line in Bowers Drive. This new sewer line has already been approved and will be complete in late 2010 (Amin 2008). As the installation of the new trunk sewer line would be complete prior to project buildout in 2011, sufficient capacity in the City's wastewater conveyance system would be available to serve the project site. Therefore, the proposed project would not require expansion of the wastewater lines beyond the improvements already planned by the City. The impact would be less than significant.

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-2:           The WPCP has sufficient capacity to accommodate the wastewater generation flows generated by the project. (*Less than Significant*)**

Wastewater generation rates are provided within the *City of Santa Clara Sanitary Sewer Capacity Assessment* and used to calculate wastewater generated by the proposed project and existing occupied uses in order to determine if the WPCP has sufficient capacity to serve the project. According to the generation rates provided in the capacity assessment, wastewater flows generated by the project would total approximately 0.14 mgd. Currently, the medical/administrative/office land uses on Parcel 3 generate

0.0015 mgd. The net increase in wastewater due to the project is minimal (0.131 mgd) and for the purposes of this EIR, the project is considered to generate 0.13 mgd. **Table 4.13-2, Estimated Project Wastewater Generation**, summarizes the estimated project wastewater generation calculations.

**Table 4.13-2**  
**Estimated Project Wastewater Generation**

<b>Land Use</b>	<b>Number of Units/Square Feet</b>	<b>Generation Rate (gpd)<sup>1</sup></b>	<b>Wastewater Generation (gpd)</b>	<b>Wastewater Generation (mgd)<sup>2</sup></b>
Single-Family Detached	45	245	11,025	0.011
Single-Family Attached	225	175	39,375	0.039
Apartments	536	154	82,544	0.083
<b>Total Project Generation</b>			<b>132,944</b>	<b>0.133</b>
Existing Occupied On-Site Buildings	10,000	0.15	1,500	0.002
<b>Net Wastewater Generation</b>			<b>131,444</b>	<b>0.131</b>

Note:

1 gallons per day

2 million gallons per day

Source: City of Santa Clara, City of Santa Clara Sanitary Sewer Capacity Assessment 2007

Currently, the WPCP treats an average of 110 mgd and has a capacity of 57 mgd available to serve future growth. The project would add 0.13 mgd, increasing the average volume of wastewater treated to 110.13 mgd and decreasing the remaining capacity to 56.87 mgd. Therefore, the project would have a less-than-significant impact related to wastewater.

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-3: Development of the project would not require expansion of the City's water treatment facility. (Less than Significant)**

According to the WSA prepared by the CSC, the proposed project would result in a water demand of approximately 406.1 afy, or 0.36 mgd (CSC 2008). Approximately 60 percent, or 0.22 mgd, would come from local groundwater supplies, which are of sufficient quality upon extraction so as not to require treatment prior to delivery. Approximately 40 percent, or 0.13 mgd, of the project water demand would be met by SCVWD imported water which is treated at the SCVWD's RWTP. Currently, the RWTP is operating at or near its design capacity of 80 mgd and generally does not have additional available capacity. The second stage of the water treatment plant improvement project, which would increase treatment capacity at the plant to 100 mgd, is scheduled to begin in early 2011 and end in 2015. While the planned expansion under the water treatment improvement project would not be complete until 2015

and proposed project buildout is scheduled for 2011, the SCVWD has indicated that the RWTP will have sufficient capacity to serve the proposed project during the period after project buildout and prior to RWTP expansion (Crowley 2008). The determination that the RWTP will have sufficient capacity to serve the project site during this period is based on the relatively low volume of water that would require treatment in addition to the collaborative management efforts conducted by the SCVWD in conjunction with the City in order to meet demand within both jurisdictions.

Domestic water service would be provided to the project site by the existing and proposed water infrastructure system (see **Figure 3.0-10, Conceptual Utility Plan**). The proposed on-site water infrastructure system would consist of 8-inch water lines that would connect to the on-site housing and extend to the water lines in Kaiser Drive, Kiely Boulevard, and Miles Drive. Three water lines would extend from the site and connect to the existing water main line under Kiely Boulevard and one water line would connect from the site to the existing water line under Kaiser Drive. A looped 8-inch main is proposed for the southern portion of the site to connect to the existing water main under Miles Drive. The project also includes an extension to the recycled water line that will be installed approximately 700 feet north of the project site in late 2008, to allow for recycled water use on-site. An existing booster water pump on Kaiser Drive would be removed and new booster pumps may be installed to help facilitate supply of water for buildings three stories and greater. As discussed above, all on-site water infrastructure improvements would connect to existing water lines and would not require an upgrade to the existing water infrastructure system.

As discussed above, the RWTP would have sufficient capacity to serve the proposed project. As the RWTP will have sufficient capacity to serve the water demand associated with the proposed project, new water treatment facilities would not be required to serve the project. Therefore, the project would have a less-than-significant impact on City's water infrastructure system.

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-4:**            **Sufficient water supplies would be available to serve the project from existing entitlements and resources, and new or expanded entitlements would not be required. (*Less than Significant*)**

#### *Project Water Demand*

The proposed project falls within the definition of a project requiring a WSA under the California Water Code Section 10912 (a)(3). In accordance with this requirement, the City of Santa Clara CSC prepared a WSA for the project. According to the WSA, the residential units proposed at the site would generate a

water demand of 406.1 afy<sup>10</sup>. This demand includes irrigation for approximately 5 acres of the green space proposed on site<sup>11</sup>. It is important to note, that the WSA calculated the water demand for 812 residential units. Since the preparation of the WSA, the number of residential units proposed for the project has decreased to 806. Therefore, the water demand presented in the WSA for the project is slightly higher than what it would be for 806 units. Nonetheless, this EIR bases the evaluation of effects on the higher estimate.

The WSA considered the historic water demand associated with the Kaiser Permanente hospital because the CSC 2005 UWMP included the hospital in the demand projections. As the hospital had a historic usage of 122.5 afy, the WSA calculated the net water demand generated by the proposed project to be an additional 283.6 afy.

The irrigated green space would require 197.4 afy of water. This demand could be met using recycled water. According to the WSA, the planned recycled water main and distribution system, as described above, that would serve this site has been adequately sized and designed to meet this demand. The construction of the recycled water main is scheduled to be completed in 2009. Since recycled water is not yet available at the project site, this EIR conservatively analyzes the City's ability to serve the project's net increase in water demand of 283.6 afy.

#### *Future Water Supply and Demand*

The CSC 2005 UWMP includes current population projections for the service area and presents water supply and demand projections through 2030 based on recent water use data, groundwater studies, and surface water supply agreements. Demand projections are separated into land use categories and projection year. **Table 4.13-3, Projected City of Santa Clara Water Demand in Acre-Feet**, presents water projections included in the UWMP. Projections are based on the projected number of housing units or the projected number of jobs in the City. These projections were based on the Association of Bay Area Governments (ABAG) 2005 Projections and ABAG 2002 Projections. Each future year is multiplied by the average consumption for land use for that year to arrive at a total demand for each land use.

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<sup>10</sup> This demand includes 119.4 afy for multi-family units, 89.3 afy for single-family units, and 197.4 afy for irrigation.

<sup>11</sup> Approximately 5 acres of open area on the project site would include landscape, impervious surfaces.

**Table 4.13-3**  
**Projected City of Santa Clara Water Demand in Acre-Feet**

Land Use	Year					
	2005	2010	2015	2020	2025	2030
Single-family	6,964	7,638	8,098	8,575	9,013	9,460
Multi-family	5,305	5,568	5,779	6,039	6,205	6,371
Commercial	7,397	8,012	8,443	8,791	9,067	9,244
Industrial	6,364	6,739	7,029	7,234	7,458	7,644
Institutional	1,097	1,140	1,236	1,292	1,354	1,396
Municipal	857	1,026	1,072	1,137	1,189	1,221
System Loss	831	864	903	937	969	1,001
<b>Total Demand</b>	<b>28,815</b>	<b>30,987</b>	<b>32,560</b>	<b>34,005</b>	<b>35,254</b>	<b>36,337</b>

*Source: City of Santa Clara Water Utility, Urban Water Management Plan 2005.*

The CSC 2005 UWMP includes data on water supply from potable sources during the average, single-dry, and multiple-dry year scenarios through 2030. **Table 4.13-4, Average, Single-Dry, and Multiple-Dry Year Water Supply in Acre-Feet**, summarizes the water supply from various sources under each scenario.

**Table 4.13-4**  
**Average, Single-Dry, and Multiple-Dry Year Water Supply in Acre-Feet**

Water Supply Source	2005			2010			2015		
	Average Year	Dry Year <sup>1</sup>	Multiple Dry Years <sup>2</sup>	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years
Groundwater	15,579			16,298	16,298	16,298	17,257	17,257	17,257
SCVWD	4,750			4,570	4,570	4,570	4,570	4,570	4,570
SFPUC	5,500			5,500	5,500	3,013	5,500	5,500	3,013
Recycled Water	2,650			3,700	3,700	3,700	4,000	4,000	4,000
Conservation	336			918	918	918	1,232	1,232	1,232
<b>Total Supply</b>	<b>28,815</b>			<b>30,986</b>	<b>30,986</b>	<b>28,499</b>	<b>32,559</b>	<b>32,559</b>	<b>30,072</b>

Water Supply Source	2020			2025			2030		
	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years
Groundwater	18,346	18,346	18,346	19,340	19,340	19,340	20,387	20,387	20,387
SCVWD	4,570	4,570	4,570	4,570	4,570	4,570	4,570	4,570	4,570
SFPUC	5,500	5,500	3,058	5,500	5,500	3,159	5,500	3,842	3,260
Recycled Water	4,300	4,300	4,300	4,500	4,500	4,500	4,500	4,500	4,500
Conservation	1,288	1,288	1,288	1,344	1,344	1,344	1,380	1,380	1,380
<b>Total Supply</b>	<b>34,004</b>	<b>34,004</b>	<b>31,562</b>	<b>35,254</b>	<b>32,254</b>	<b>32,913</b>	<b>36,337</b>	<b>34,679</b>	<b>34,097</b>

Notes:

<sup>1</sup> Figures for the single-dry year scenario applicable to 2005 were not included in the UWMP.

<sup>2</sup> Figures for the multiple-dry years scenario applicable to 2005 were not included in the UWMP.

Source: City of Santa Clara Water Utility, Urban Water Management Plan 2005.

A comparison of the demand and supply figures presented in **Tables 4.13-3** and **4.13-4** is provided in **Table 4.13-5, Comparison of Water Demand and Supply**. As shown, water supply deficits would occur in 2030 under the single-dry year scenario and in 2010, 2015, 2020, 2025, and 2030 under the multiple-dry year scenario. As indicated on page 37 of the SCVWD 2005 UWMP (see **Appendix 4.13**), the SCVWD 2005 UWMP states that the District will meet water demand throughout the county in the event of drought conditions through the next 25 years.

**Table 4.13-5**  
**Comparison of Water Demand and Supply**

	2005			2010			2015		
	Average Year	Dry Year <sup>1</sup>	Multiple Dry Years <sup>2</sup>	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years
Demand	28,815	28,815	28,815	30,986	30,986	30,986	32,559	32,559	32,559
Supply	28,815			30,986	30,986	28,499	32,559	32,559	30,072
<b>Difference</b>	<b>0</b>			<b>0</b>	<b>0</b>	<b>2,487</b>	<b>0</b>	<b>0</b>	<b>2,442</b>

  

	2020			2025			2030		
	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years	Average Year	Dry Year	Multiple Dry Years
Demand	34,004	34,004	34,004	35,254	35,254	35,254	36,337	36,337	36,337
Supply	34,004	34,004	31,562	35,254	35,254	32,913	36,337	34,679	34,097
<b>Difference</b>	<b>0</b>	<b>0</b>	<b>2,341</b>	<b>0</b>	<b>0</b>	<b>2,240</b>	<b>0</b>	<b>1,658</b>	<b>2,140</b>

Source: City of Santa Clara Water Utility, Urban Water Management Plan, (2005) 43.

<sup>1</sup> Figures for the single-dry year scenario applicable to 2005 were not included in the UWMP.

<sup>2</sup> Figures for the multiple-dry years scenario applicable to 2005 were not included in the UWMP.

*Projected Water Demand for Other Proposed Projects*

**Table 4.13-6, Water Demand for Foreseeable Projects Excluding Gallery at Central Park Project**, summarizes the projected changes in water demand for each user category and the planning period in which the change is expected to occur for foreseeable projects excluding the proposed project<sup>12</sup>. The demand is shown as a net increase in demand for sites where an existing use previously occupied the site.

**Table 4.13-6  
Water Demand for Foreseeable Projects Excluding Gallery at Central Park Project**

Land Use	Year					
	2005	2010	2015	2020	2025	2030
Single-family	20.8	0.0	0.0	0.0	0.0	0.0
Multi-family	61.0	66.6	121.2	0.0	0.0	0.0
Commercial	606.6	398.7	10.8	0.0	0.0	0.0
Industrial	0.0	51.1	154.2	0.0	0.0	0.0
Institutional	0.0	0.0	0.0	0.0	0.0	0.0
Municipal	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Demand</b>	<b>688.4</b>	<b>449.8</b>	<b>286.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Source: CSC 2008

**Table 4.13-7, Water Demand for Foreseeable Projects Including Gallery at Central Park Project**, shows the water demand for all foreseeable projects that were not included in the CSC 2005 UWMP plus the proposed project. As described above, the water demand for the former Kaiser facility was subtracted from the institutional category and the project's demand was added to the single family development and multi-family development categories. The water demand for the approximately 5 acres of green space was apportioned between those two categories.

<sup>12</sup> The project water demand for other recently proposed projects were not specifically considered in the CSC 2005 UWMP (see appendix D of the WSA).



**Table 4.13-7**  
**Water Demand for Foreseeable Projects Including Gallery at Central Park Project**

Land Use	Year					
	2005	2010	2015	2020	2025	2030
Single-family	20.8	173.6	0.0	0.0	0.0	0.0
Multi-family	61.0	299.0	121.2	0.0	0.0	0.0
Commercial	606.6	398.7	10.8	0.0	0.0	0.0
Industrial	0.0	51.1	154.2	0.0	0.0	0.0
Institutional	0.0	-122.5	0.0	0.0	0.0	0.0
Municipal	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Demand</b>	<b>688.4</b>	<b>799.9</b>	<b>286.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Source: CSC 2008

The CSC 2005 UWMP projects increases for each user category in five-year increments. **Table 4.13-8, Project Increases by User Type in Five-Year Increments**, shows the projected increases for each category identified in the UWMP.

**Table 4.13-8**  
**Projected Increases by User Type in Five-Year Increments**

Land Use	Year					
	2005	2010	2015	2020	2025	2030
Single-family	674	460	477	438	438	447
Multi-family	263	211	260	166	166	166
Commercial	615	431	348	276	276	177
Industrial	375	290	205	224	224	186
Institutional	43	96	56	62	62	42
Municipal	169	46	65	52	52	32
System Loss	33	39	34	32	32	32
<b>Total Demand</b>	<b>2,172</b>	<b>1,573</b>	<b>1,445</b>	<b>1,250</b>	<b>1,250</b>	<b>1,082</b>

Source: CSC 2008

As shown, the water demand for the foreseeable projects plus the proposed project would result in a lower demand than was anticipated in the CSC 2005 UWMP. Note that the 2010 to 2014 demand for multi-family is higher for the foreseeable projects plus proposed project than projected in the UWMP. The

offset of 39 afy is attributed to the decrease of 122.5 afy on institutional water demand and the lack of increase in other categories. The increase in water demand from the proposed project and other foreseeable projects identified in the WSA falls well within the projected water demand increased described in **Table 4.13-2**, and the water demand increases in **Table 4.13-6** are lower than the demand based on the projected change in land use predicted in the CSC 2005 UWMP.

#### *Comparison of Actual Water Sales to Projected Water Demands*

**Table 4.13-9, Actual Potable and Recycled Water Sales**, shows the actual water demand for 2005 through 2007 by land use category. As shown, the current overall system demand is lower than was projected by the CSC 2005 UWMP for the years 2005 (see **Table 4.13-2**). The 2007 total water demand for the City was projected to be 29,683 afy, whereas the actual water demand for 2007 was 27,283 afy, or 2,400 afy less than project and planned in the CSC 2005 UWMP.

**Table 4.13-9**  
**Actual Potable and Recycled Water Sales**

Land Use	Year		
	2005	2006	2007
Single-family	6,346	6,312	6,535
Multi-family	5,013	5,044	5,288
Commercial	6,963	6,924	7,310
Industrial	4,972	5,111	5,022
Institutional	903	902	1,025
Municipal	1,207	1,200	1,396
System Loss	996	1,222	707
<b>Total Demand</b>	<b>26,400</b>	<b>26,715</b>	<b>27,283</b>

Source: CSC 2008

#### *Conclusion*

The proposed project would result in a net increase in water demand at the project site of 283.6 afy. This conservatively assumes that potable water would be served to meet irrigation demand on site. The use of recycled water for irrigation would decrease this total demand to 86.2 afy. The WSA concluded that there is sufficient water supply to serve the project demand, with or without recycled water. To illustrate, assuming the demand trend in **Table 4.13-7** continues through 2010, the total actual demand for 2005-2010 would be 28,160 afy. This is 655 afy less than the projected demand in the CSC 2005 UWMP for 2005

through 2010. Therefore, the project's net increase in water demand of 283.6 afy can be met by the City's current water supplies. This is a conservative assumption since the use of recycled water would be a project condition of approval, and therefore the net increase of water demand would actually be 86.2 afy.

The SCVWD is able to provide water supplies during dry conditions through a variety of sources including the Central Valley Project (CVP), treatment plants (i.e., Rinconada, Penitencia, and Santa Teresa), 10 reservoirs, recharge facilities, and groundwater basins. The SCVWD 2005 UWMP concludes that water supplies provided by the SCVWD in the event of drought conditions would be sufficient to supplement City supplies and meet the overall demand during drought conditions. Further, the City would implement the Water Shortage Contingency Plan included in the SCVWD 2005 UWMP in the event of a natural disaster (e.g., earthquake, loss of wells, loss of imported water supplies, etc.) or any other situation that would compromise a component of the City water supply. Based on the conclusions in the WSA prepared for the proposed project and the SCVWD 2005 UWMP, sufficient water supply would be available to serve the project.

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-5:**            **The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. (*Less than Significant*)**

As shown in **Table 4.13-10, Estimated Project Solid Waste Generation**, the proposed project would generate approximately 5,096 tons of solid waste per year. When considering the currently occupied buildings within Parcel 3, the net amount of solid waste generated would be 5,036 tons per year. This figure represents a worst-case estimate because recycling is not considered. The 2004 diversion rate for landfill disposal for the City was 53 percent, which complies with the goals specified in AB 939 (CIWMB 2008). If a diversion rate of 53 percent is applied, the proposed project would generate approximately 2,367 tons of solid waste per year, which would be disposed of at the Newby Island Landfill and Recyclery (NILR). The NILR has a remaining capacity of 18.3 million cubic yards and a contract is in place that allows the City to dispose of all solid waste generated within the City at the Newby Island Landfill through 2019. The estimated total annual volume for the City includes municipal waste from all areas of the City, including the project site. It should be noted that until late 2007, a greater volume of municipal solid waste was generated at this site due to the operation of the hospital. Therefore, it is likely that a larger volume of waste from the project site is accounted for in the City's waste projections. Therefore, the project would be served by a landfill with sufficient permitted capacity to accommodate project solid waste disposal needs. Impacts would be less than significant.

**Table 4.13-10**  
**Estimated Project Solid Waste Generation**

<b>Land Use</b>	<b>Number of Units or Square Feet</b>	<b>Generation Factor</b>	<b>Solid Waste Generation (tons/year)</b>
Single-Family Detached	45	41 (lbs/week) <sup>1</sup>	49.97
Single-Family Attached	225	34 (lbs/week)	198.90
Apartments	536	34 (lbs/week)	473.82
<b>Subtotal</b>			<b>722.69</b>
Existing Occupied On-Site Buildings	10,000	0.006 (lbs/sq ft/day) <sup>2</sup>	60
<b>Net Solid Waste Generation</b>			<b>662.69</b>
53 percent diversion rate			(351.23)
<b>Project Solid Waste Generation</b>			<b>311.46</b>

Notes:

<sup>1</sup> pounds per week

<sup>2</sup> pounds per square foot per day

Source: City of Santa Clara; California Integrated Waste Management Board

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-6:**      **Development of the project would not require or result in the construction or expansion of electrical or natural gas facilities which would cause significant environmental impacts. (*Less than Significant*)**

In addition to an impact analysis under the above threshold, the following discussion evaluates the project according to the requirements contained in Appendix F of the *State CEQA Guidelines*. The proposed project is anticipated to require 13,531 kilowatt hours per unit per year (kWh/unit/year)<sup>13</sup> of electricity (Van Winkle 2008). Additionally, project construction would require small quantities of electricity; however, diesel fuel would be the primary energy source that would power construction equipment and generators. Typical base and peak energy demand periods for hospitals and residential uses differ, with hospitals characterized by a more even demand over a 24-hour period and residential uses exhibiting a spike in demand in the morning and evening hours. Therefore, the base and peak demand periods would change accordingly with project implementation. SVP and PG&E have indicated that they are able to provide electricity and natural gas services, respectively, to the project site utilizing existing infrastructure and power sources (Stone 2008; Flores 2008). Electrical and gas infrastructure exists

<sup>13</sup> Please refer to **Appendix 4.4**, GHG emission calculations for a breakdown of how this number was generated.

on and around the site and served the Kaiser hospital when it was occupied in late 2007. Only minor modifications to the on-site distribution system would be required to connect the project to the existing off-site system. Further, the project would comply with Title 24, which requires the inclusion of state-of-the-art energy conservation features in building design and construction. Therefore, the construction or expansion of electrical or natural gas transmission or generation facilities would not be required and the impact would be less than significant.

**Mitigation Measures:** No mitigation measures required.

**Impact UTIL-7:**            **Development of the project would not require or result in the construction or expansion of telecommunication facilities, which would cause significant environmental impacts. (*Less than Significant*)**

Telecommunications infrastructure exists on and around the project site and served the Kaiser hospital when it was occupied. Any required modifications and improvements to existing telecommunication infrastructure would be determined in consultation with AT&T upon review of the proposed project. The applicant would provide upgrades to the telecommunications infrastructure as required by conditions of approval as part of the City development review process. Improvements would include minor modifications to the existing telecommunications infrastructure, which would not result in a significant environmental impact. Therefore, impacts would be less than significant.

**Mitigation Measure:** No mitigation measures required.

### ***Cumulative Impacts and Mitigation Measures***

The following impact analysis evaluates the significance of potential cumulative impacts of the proposed project in conjunction with the impacts from the projects included in **Table 4.0-1, Related Projects**.

#### **Water Supply**

The WSA shows that water supply deficits would occur in 2030 under the single-dry year scenario and in 2010, 2015, 2020, 2025, and 2030 under the multiple-dry years scenario. However, the SCVWD would meet water demand throughout the county in the event of drought conditions through the next 25 years. The SCVWD 2005 UWMP concludes that water supplies provided by the SCVWD in the event of drought conditions would be sufficient to supplement City supplies and meet the overall demand during drought conditions. Further, the City would implement the Water Shortage Contingency Plan included in the SCVWD 2005 UWMP in the event of a natural disaster or other situation that would compromise a component of the City water supply. Additionally, recycled water would be available for irrigation

purposes and future projects would be required to landscape with recycled water. As sufficient water supply could be provided to planned growth within the City through 2030, new entitlements of new sources of water would not be needed to serve the cumulative water demand and the cumulative impact related to water supply would be less than significant.

### **Water Treatment**

As discussed previously, the RWTP is in the process of implementing an improvement project. The second stage of the improvement project includes an upgrade in treatment capacity to 100 mgd, which will be complete in 2015. The planned expansion is intended to accommodate planned growth within the City, which includes the projects listed in **Table 4.0-1, Related Projects**. As adequate treatment capacity would be available at the RWTP to serve the proposed project and related projects, cumulative impacts would be less than significant. Currently four projects located within 1.5 miles of the project site are anticipated to be built out between 2008 and 2013. All other projects included in **Table 4.0-1** in **Section 4.0 Environmental Setting** could be constructed sometime after 2013. Therefore, it is likely that because the treatment plant is at near capacity, the addition of the proposed project and other related projects would cause a cumulatively significant impact on the treatment plant's capacity. However, as discussed in **Impact UTIL-3**, sufficient treatment capacity would be available to serve the project on an individual- or project-level basis prior to the improvements in 2015. Therefore, although the project would contribute to a cumulatively significant impact, its individual impact is not significant and therefore would not be considered a cumulatively considerable impact.

### **Wastewater Conveyance and Treatment**

The CSC owns and maintains the sanitary sewage collection and conveyance system within the City. The phased Capital Improvement Program developed as part of the *City of Santa Clara Sanitary Sewer Capacity Assessment* includes several projects that would upgrade the existing sewage collection and conveyance system to accommodate planned growth within the City. The first capital improvement project to be implemented is a new trunk sewer running west to east from Chromite Drive just west of Bowers Avenue to Central Parkway east of Lafayette Street, which will alleviate capacity deficiencies in the trunk lines in Bowers Avenue and Great American Parkway. Construction is expected to begin in mid 2009 and end in late 2010 (Amin 2008). Further, the CSC will continue to evaluate the collection and conveyance system as part of the City's development review process and require necessary upgrades to the system. Therefore, cumulative impacts would be less than significant.

The WPCP has the capacity to treat 167 mgd to tertiary standards. Currently, the WPCP treats an average of 110 mgd and has an available capacity of 57 mgd (Rock 2008). The proposed project is expected to be operational by 2011. Using the assumption for cumulative conditions, the projects listed in **Table 4.13-11**,

**Estimated Cumulative Wastewater Generation** provides a list of foreseeable projects that would be constructed by this time or a time beyond the project's horizon year. As shown in **Table 4.13-11** the related projects would generate approximately 13 mgd of wastewater. This, in combination with the project's generation (0.13 mgd), would increase the average intake of 110 mgd to approximately 123 mgd and decrease the remaining capacity to approximately 44 mgd. Given this, the WPCP has sufficient capacity to accommodate wastewater flows generated by the proposed project and planned projects expected to be operation by and beyond 2011. Therefore, new wastewater treatment facilities would not be required to serve the project and other currently approved projects. As the WPCP has sufficient capacity available to serve the proposed project and related projects, the cumulative impact would be less than significant. Furthermore, the proposed project would not individually exceed the WPCP wastewater capacity; therefore, it would not have a cumulatively considerable impact.

**Table 4.13-11**  
**Estimated Cumulative Wastewater Generation**

Project	Number of Units	Generation Rate (gpd) <sup>1</sup>	Wastewater Generation (gpd)	Wastewater Generation (mgd)
Intel SC-12b Regency	100,000 sq. ft. office <sup>3</sup>	0.15/sq. ft.	15,000	0.015
Intel SC-13	100,000 sq. ft. office	0.15/sq. ft.	15,000	0.015
Intel SC-14	400,000 sq. ft. office	0.15/sq. ft.	60,000	0.060
Informix	400,000 sq. ft. office	0.15/sq. ft.	60,000	0.060
Applied Materials	840,000 sq. ft. R&D <sup>4</sup>	0.15/sq. ft.	126,000	0.126
Hewlett Packard Agilent Technologies	727,500 sq. ft. office/R&D	0.15/sq. ft.	109,125	0.109
3 Com Pal Cognac Great America	278,000 office/R&D	0.15/sq. ft.	41,700	0.041
Yerba Buena/Irvine	911,000 sq. ft. office	0.15/sq. ft.	136,650	0.137
18 Shea/UL	132 residential units	245/du <sup>5</sup>	32,340	0.032
Kaiser Hospital	130,000 sf medical office	0.15/sq. ft.	19,500	0.019
BAREC	165 residential (MFH) <sup>6</sup>	245/du	40,425	0.040
	110 residential (SFH) <sup>7</sup>	175/du	19,250	0.019
Santa Clara SC-IV	312,000 sq. ft. office	0.15/sq. ft.	46,800	0.047
Prometheus Development	124 residential units	245/du	30,380	0.030
Kohl/Santa Clara Square	490 residential units	245/du	120,050	0.120
	171,000 sq. ft. retail	0.1/sq. ft.	17,100	0.017
Marina Playa/BRE	277 residential (MFH) <sup>6</sup>	245/du	67,865	0.068
	63 residential (SFH) <sup>7</sup>	175/du	11,025	0.011

Project	Number of Units	Generation Rate (gpd) <sup>1</sup>	Wastewater Generation (gpd)	Wastewater Generation (mgd)
Sobrato/Lawson Lane	516,000 sq. ft. office	0.15/sq. ft.	77,400	0.077
Yahoo	3,000,000 sq. ft. office/R&D	0.15/sq. ft.	450,000	0.450
Menlo Equities	179,000 sq. ft. office	0.15/sq. ft.	26,850	0.027
2585 El Camino Real	60 residential units	245/du	14,700	0.015
	3,307 sq. ft. retail	0.1/sq. ft.	331	0.001
2350 Mission College	300,000 sq. ft. office	0.15/sq. ft.	45,000	0.045
Boulevard Regency Plaza	6,000 sq. ft. retail	0.1/sq. ft.	600	0.001
EOP Augustine - Bowers	1,925,600 sq. ft. office	0.15/sq. ft.	288,750	0.29589
	35,000 sq. ft. retail	0.1/sq. ft.	3,500	0.003
3250 Scott Boulevard Lowe Enterprises	215,000 sq. ft. office	0.15/sq. ft.	32,250	0.032
2875 Lakeside Drive Hotel Le Grande	170 hotel/condominium units	154/DU	26,180	0.026
Harvest Properties San Tomas Business Park	21,000,950 sq. ft. office	0.15/sq. ft.	300,292	0.300292
Sobrato	600,000 sq. ft. office	0.15/sq. ft.	90,000	0.090
Mission College Master Plan	427,000 sq. ft.	0.15/sq. ft.	64,050	0.064
Pelio Investments	350,000 sq. ft.	0.15/sq. ft.	52,500	0.052
<b>Total Wastewater Generation</b>			<b>2,439,511,507,035</b>	<b>12.507436</b>

## Notes:

<sup>1</sup> gallons per day<sup>2</sup> million gallons per day<sup>3</sup> square feet<sup>4</sup> research and development<sup>5</sup> dwelling unit<sup>6</sup> multi-family home<sup>7</sup> single-family home

Source: City of Santa Clara; California Integrated Waste Management Board

## Solid Waste

The NILR has a remaining capacity of approximately 18.3 million cubic yards and a contract is in place that provides capacity for disposal of all solid waste generated within the City at the landfill through 2019. The 2004 diversion rate for landfill disposal for the City was 53 percent, which complies with the goals specified in AB 939 (CIWMB 2008). The City will continue to divert solid waste from NILR through recycling and waste reduction programs. As the City is under contract with NILR through 2019 and



sufficient landfill capacity exists to accommodate planned growth, including the proposed project and related projects, the cumulative impact would be less than significant.

### Electricity and Natural Gas

The City of Santa Clara is largely developed and practically all related projects involve redevelopment. Existing electricity and natural gas infrastructure currently serve the project site and each related project site. Related projects would be connected to the existing electricity and natural gas distribution system through minor extensions, which would not result in a significant environmental impact.

Project demand for electricity by itself would not require the construction of new power generation facilities, and the project impact related to off-site generation facilities would be less than significant. The project demand would, however, combine with the demand for electricity associated with the related projects listed in **Table 4.0-1, Related Projects**, along with other proposed projects in the region and could contribute to the need for an expansion of an existing power plant or the construction of a new power plant. About 22 percent of the electricity used in Santa Clara is generated at the SVP power plant and 88 percent is purchased from external sources. The external sources of electricity are diverse and widespread, and supply is usually made from a number of sources. Both electricity and gas needed by the cumulative projects may in fact be generated out of state. It is therefore not reasonable to predict where the supply sources would be located or to evaluate the environmental consequences from the construction and operation of such facilities. Furthermore, if the new power generation facilities were to be located in California, they would be subject to environmental review and would be required to avoid or minimize their environmental impacts. Accordingly, the cumulative impact would be less than significant.

### 4.13.5 References

- Amin, F. 2008. City of Santa Clara Engineering Department Project Manager. Personal communication with M. Schaefer, Impact Sciences. February 13., 2008.
- California Department of Water Resources. 2005. "California Water Plan Update."
- California Department of Water Resources. 2008. "The State Water Project Delivery Reliability Report 2007."
- California Integrated Waste Management Board. 2006. "Active Landfills Profile for Newby Island Sanitary Landfill." <http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/Default.asp>.
- California Integrated Waste Management Board. 2008. "Estimated Solid Waste Generation Rates for Institutions." <http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Institution.htm>.

California Integrated Waste Management Board. 2008. "Jurisdiction Profile for City of Santa Clara." <http://www.ciwmb.ca.gov/profiles/juris>.

City of Santa Clara. 2003. "Public Facilities and Services Element," *2000 – 2010 General Plan*.

City of Santa Clara. 2003. *Water Service and Use Rules and Regulations*.

City of Santa Clara. 2007. *Sanitary Sewer Capacity Assessment*.

City of Santa Clara. 2008. 900 Kiely Boulevard Development Application – Water Supply Assessment for Compliance with California Water Code Section 10910, City of Santa Clara Water and Sewer Utilities, CA. August.

City of Santa Clara. 2003. Municipal Utilities Rules and Regulations: Rules and Regulations for Water Service and Use.

City of Santa Clara Water Utility. 2005. *Urban Water Management Plan*.

Crowley, J. 2008. Santa Clara Valley Water District Engineering Unit Manager. Personal communication with M. Schaefer, Impact Sciences. February 29.

Flores, O. 2008. Pacific Gas and Electric Company Senior New Business Representative. Personal communication with M. Schaefer, Impact Sciences. February 25.

Kravetz, O. 2008. BORM Engineers. Personal communication with M. Schaefer, Impact Sciences. April 16.

Rock, K. 2008. San Jose/Santa Clara Water Pollution Control Plant General Operations Supervisor. Personal communication with M. Schaefer, Impact Sciences. February 25.

Santa Clara Valley Water District. 2005. *Urban Water Management Plan*.

Stobb, D. 2008. City of Santa Clara Solid Waste Superintendent. Personal communication with M. Schaefer, Impact Sciences. February 13.

Stone, W. 2008. Silicon Valley Power Key Customer Representative. Personal communication with M. Schaefer, Impact Sciences. March 12.